

POLYNUCLEOTIDE CONSTRUCTS FOR INCREASED LYSINE PRODUCTION

ABSTRACT

The invention relates to production of lysine, and provides several isolated polynucleotide molecules useful for the production of L-lysine. One such polynucleotide encodes an aspartate kinase (ask), an aspartate-semialdehyde dehydrogenase (asd) and a dihydrodipicolinate reductase (dapB). Other polypeptides encode ask, asd, dapB and a diaminopimelate dehydrogenase (ddh); ask, asd, dapB, ddh and an ORF2 polypeptide; and ask, asd, dapB, ddh, ORF2 and a diaminopimelate decarboxylase (lysA). The invention further provides methods of making and using the polynucleotides, and methods to increase the production of L-lysine.